KANSAS DEPARTMENT OF AGRICULTURE

Plant Disease in Kansas

VOLUME 36, ISSUE 7

OCTOBER 12, 2010

Special points of interest:

- *Leave that pine wilt tree till winter then clean it up thus killing the vector insect*
- *See Thousand Cankers survey map for Kansas walnuts*
- *Images of PWN and TCD*

Pine wilt (nematode caused) moving westward

This is the time of year when pine wilt is apparent in many areas of Kansas. The disease moves from tree to tree by an insect vector, the Carolina sawyer beetle. The hot dry weather of late summer and fall has made ideal conditions for the expression of pine wilt. Trees are completely dying in a few weeks time. Nematodes that cause the disease are in relatively high numbers in the samples being analyzed. These nematodes in exotic pines such as Scotch, mugo, and Austrian feed in and destroy resin canals in the trees and cause the sudden death in times of water and temperature stress.

Right now is transition time: adult beetles transmit nematodes during maturation feeding and are moving into mating and egg laying part of their life cycle.

Sawyer beetles that transmit the disease from one tree to another are attracted to these dead or dying trees to lay eggs for the next generation of beetles that will emerge next spring and summer and carry the nematode.

If you have not removed pine wilt trees, you may want to consider leaving that tree till winter. In this way, your chances at destroying next years sawyer insects are greater. Sawyers will be attracted to the dead tree to lay eggs. Sawyers lay eggs from now till mid November. When you destroy the wood this winter by burning, burying, or chipping you will be essentially destroying those vectors (at least in part). That is about the best control we have.

For more information on pine wilt management go to the following web page.

http://www.ksda.gov/includes/document_center/plant_protection/Plant_Disease_Fact_Sheets/PineWiltManagementandControlfall2010.pdf

What is new: Ellis County has had reports (a few) over the past 4 years. Reports are substantially up in numbers this fall.

New county reports have been in Rush, Pawnee, and Barber counties.

Hays, Pratt, Great Bend, and Beloit are actively managing PWN.

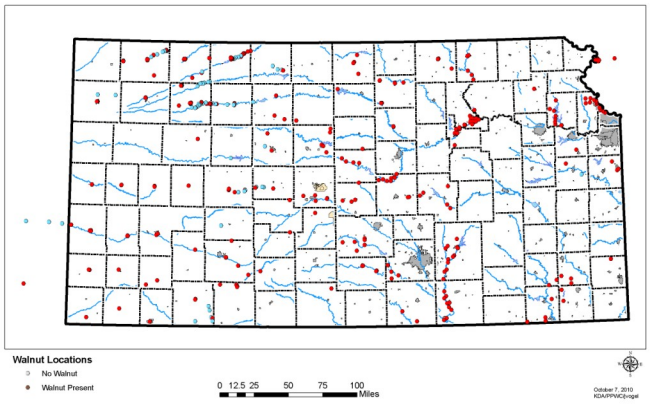
Garden City (trees removed) had a couple of reports in close proximity. PWN was reported a few years ago but since then survey has not indicated the presence of the disease. The recent finds are linked to possible human introduction of large landscape trees.

"PINE WILT 2010 Kansas " in GOOGLE MAPS for the range of pine wilt in central and western counties. Look and see the western finds.

Thousand cankers disease of walnut

The Kansas Forest Service and Kansas Department of Agriculture have been cooperatively surveying Kansas walnuts for the disease known as Thousand cankers disease. Over 420 observations have been in 2009 through October of 2010. The map shows general locations of survey. Some observations are hidden. TCD has not been found here in Kansas. In addition, trapping for the walnut twig beetle at select sites such as logging yards, plantations, and stressed trees have been negative for the vector insect (not shown).

The Kansas Forest Service estimates almost 10 million dollars annually could be lost if TCD is established here.



PLANT PROTECTION AND WEED CONTROL PROGRAM
PO BOX 19282
FORBES FIELD, BLDG 282, STREET I
TOPEKA, KANSAS 66619-2180

Phone: 785-862-2180
Fax: 785-862-2182

http://www.ksda.gov/plant%5Fprotection/

WEB ADDRESS FOR THE PLANT PROTECTION PROGRAM

AUTHOR: JON A. APPEL
PLANT PATHOLOGIST
KANSAS DEPARTMENT OF AGRICULTURE

MANHATTAN, KANSAS
PHONE: 785-537-3155
EMAIL: JON.APPEL@KDA.KS.GOV

INVASIVE SPECIES

Plant Protection and Weed Control Program

Plant Protection and Weed Control staff work to ensure the health of the state's native and cultivated plants by excluding or controlling destructive pests, diseases and weeds. Staff examine and analyze pest conditions in crop fields, rangelands, greenhouses and nurseries. Action taken to control potential infestations of new pests, whether they are insects, plants diseases or weeds, is beneficial to the economy and the environment.

Our Mission is to:

- Exclude or control harmful insects, plant diseases, and weeds;
- Ensure Kansas plants and plant products entering commerce are free from quarantine pests;
- Provide customers with inspection and certification services.

The Plant Disease Survey in Kansas has been conducted since 1976. The survey addresses disease situations in field crops, native ecosystems, and horticultural trade. The Kansas Department of Agriculture works cooperatively with Kansas State University and Extension programs, United States Department of Agriculture, and various commodity groups.

Images of Pine wilt in Kansas and Thousand Cankers in TN and CO

M. Lodge 10/10

Image top left: A male pine sawyer with "round"exit hole (5mm diameter). J. Appel, KDA

Image bottom left: A Scotch pine in Medicine Lodge, Kansas with complete death from pine wilt. The tree died in a few weeks. T. Clarkson, KDA

Image top right: Red dot indicates approximate location of TCD in Tennessee: Union, Anderson, Knox, and Blount counties. States in red are TCD positive. The green represents native range of B. Walnut. USDA Forest Service.

Image bottom right. A walnut with TCD in Colorado. USDA Forest Service.